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1. New eeBuildings Case Study: Integrating Tenant Comfort and Energy Savings at the ITC Hotel Grand Maratha Sheraton

The ITC Hotel Grand Maratha Sheraton and Towers is a 386-room five-star hotel in the Sahar district of Mumbai, India. Hotel building management staff has significantly reduced utility costs by carefully monitoring and adjusting daily building operations to reduce energy consumption.

As part of ITC Sheraton's performance monitoring, the hotel's building staff regularly records electricity and gas use at specified times during the day. At the beginning of each shift, staff discuss the day's current tracking information. The outgoing shift staff is responsible for explaining the current energy use pattern to the incoming shift staff and alerts them to areas that may require attention. This analysis of daily energy consumption data allows the management team to stabilize energy use and avoid unnecessary demand charges.

Paying close attention to building performance helped the maintenance staff identify no-cost and low-cost measures to improve energy efficiency while maintaining five-star comfort levels. Some of these measures included altering hotel lighting operations in order to utilize natural daylight and installing low-cost timers and photocell controls to switch off artificial lights when daylight alone is adequate. These low-cost lighting adjustments reduced energy consumption by more than 96,000 kWh in one year, resulting in an annual savings of Rs. 407,000 (US\$9,000).

Read the full case study, and learn more about all the no-cost and low-cost measures implemented at [The ITC Hotel Grand Maratha Sheraton and Towers by clicking here](#).

2. Featured No-Cost Measure: Energy Performance Monitoring

The routine collection, organization, and analysis of energy usage and cost information are essential to improving building energy performance. eeBuildings recommends that building managers periodically review their monthly utility bills and record and compare changes in electricity consumption, peak demand, and electricity cost information. This analysis will help building staff develop a thorough understanding of their building's energy usage and cost characteristics, which will make it easier to understand how the benefits of energy efficiency measures translate into electricity and cost savings, and to identify unexpected changes that indicate potential problems with building systems.

Many Building Automation Systems (BAS) can be programmed to automatically monitor energy use and demand for the entire building. Typically, a BAS can track total building consumption (kWh) and demand (kW), time of peak demand, and selected demand limit. We recommend that building managers identify and implement the approach that is most efficient—either analyzing monthly utility bills or programming the BAS system.

By collecting 12 months of energy performance information and recording your building's monthly energy consumption, it is possible to measure the impact of future energy-efficiency measures. This

can be done by comparing current or future energy consumption to the same month in the previous year, before the implementation of energy efficiency measures. Building managers can then communicate these energy and cost savings to important audiences, such as the building owner or tenants.

3. Coming Soon: eeBuildings Energy Performance Monitoring Tool

eeBuildings is excited to announce that it will release a free, CD-Rom, Excel-based Energy Performance Monitoring Tool in Spring 2007. The tool will automatically generate tables and graphs to help you track and analyze monthly and annual energy performance data for your building.

The tool will save information you enter from your monthly utility bills and automatically calculate the following building totals:

- Monthly peak demand and cost (kW and RMB)
- Monthly and annual electricity consumption and cost (kWh and RMB)
- Monthly and annual electricity consumption per square meter (kWh per square meter)
- Monthly and annual building occupancy (% of occupied building space)

The tool will also generate graphical displays of the data, including:

- Monthly electricity consumption and cost
- Monthly electricity consumption and cost versus a baseline
- Annual electricity consumption and cost versus a baseline
- Actual peak demand versus contracted demand

The eeBuildings' Energy Performance Monitoring Tool is scheduled for release in Spring 2007. Initially, the tool will be customized for Chinese users, but later versions will accommodate additional international markets. Please look for updates in our next newsletter and on the eeBuildings website at www.epa.gov/eeBuildings.

4. eeBuildings Expands Work with China's Commercial Building Industry

eeBuildings is excited to announce its newest China partner, Shanghai Donghu Property Management Company. The company manages six million square meters of commercial building floor space, including banks, government buildings, and high-tech zone properties. The eeBuildings program now works with a grand total of over 55 million square meters of Chinese office space. [See our full list of partners.](#)

In July, eeBuildings presented Vivian Tang of Savills Property Services (Shanghai) with its first annual eeBuildings Partner of the Year Award. The Partner of the Year award is a symbol of the US EPA eeBuildings program's appreciation to Ms. Tang for her dedication and leadership in improving energy performance in commercial buildings, resulting in superior management services to her clients and reduced atmospheric pollutant emissions. Ms. Tang has supported the eeBuildings program as an active partner for over four years. [Read the full Savills press release.](#)

eeBuildings continues its cooperation with the China Standard Certification Center in Beijing, which is currently developing a building energy efficiency certification program. The US EPA has been sharing lessons learned through the US ENERGY STAR program to support CSC product labeling activities since 2000.

The eeBuildings team has been meeting with Huitong Company, one of the first energy service companies (ESCOs) to be active in Chinese buildings. A participant in a World Bank-led ESCO development program, Huitong has worked with Shangshi Building in Shanghai to implement measures for improving HVAC efficiency through an innovative variable speed drive and electronic controls program. eeBuildings is currently working with both Shangshi building management and the Huitong Company to document the success of their building energy performance improvement measures.

5. Help Us Build a Better Newsletter

- We'd like to hear about your progress. If you have had successful experiences improving the energy efficiency of your buildings outside the US, please let us know at eeBuildings@epa.gov.

- We are interested in updating our partner list and linking to external websites. Please let us know if you would like your organization name and URL to be added to the list.

- If you have suggestions for how to improve the content of this newsletter, please send them to eeBuildings@epa.gov.

To learn more about eeBuildings, visit <http://www.epa.gov/eeBuildings> or e-mail eeBuilding@epa.gov.

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The US Environmental Protection Agency's eeBuildings (energy-efficient Buildings) program helps international building owners, managers, and tenants improve the energy performance of their buildings. Drawing on the expertise of ENERGY STAR, eeBuildings connects financial and environmental performance to energy efficiency.

This newsletter is produced and edited by ICF Consulting. ICF supports EPA's eeBuildings and ENERGY STAR activities.
